E.2 WASTE MANAGEMENT ACTIVITIES

E.2.1 HANFORD SITE

Established in 1943, Hanford facilities were primarily dedicated to the production of weapons-grade plutonium (Pu) and management of the wastes generated by defense activities. In later years, these missions were expanded to include increasingly diverse programs involving R&D for advanced reactors, renewable energy technologies, waste disposal technologies, and the cleanup of contamination from past activities.

Today, production of enriched fuel at Hanford reactors and recovery of Pu no longer occur. Hanford's primary mission is the cleanup of the site. On May 15, 1989, DOE, the Washington State Department of Ecology, and the EPA signed the *Hanford Federal Facility Agreement and Consent Order* (Tri-Party Agreement), an agreement to clean up radioactive and chemical waste at the site over the next 30 years. It contains a blueprint for the cleanup and uses enforceable milestones to keep the program on schedule. The Tri-Party Agreement negotiations—completed in 1993 and approved in January 1994—changed and added many new milestones. Most of the changes were related to the tank waste remediation system.

The waste management program accounts for the majority of lifecycle costs at Hanford. Much of the emphasis is placed on tank waste, which, when processed, will yield vitrified HLW and LLW fractions. Waste management programs at Hanford are divided into five key areas: (1) the tank waste remediation system program managing HLW, (2) spent nuclear fuel storage at the K-Basins and other locations, (3) cesium (Cs) and strontium capsule management at the waste encapsulation and storage facility at B-Plant, (4) liquid waste management, and (5) solid waste management. Each waste management program is described in the discussions that follow with regard to treatment, storage and handling, and disposal activities associated with spent nuclear fuel and the following waste categories: high-level, TRU, low-level, mixed, hazardous, and nonhazardous. Figure E.2.1–1 depicts tank waste management at Hanford.

Pollution Prevention. Radioactive, hazardous, and mixed wastes are treated, stored, or disposed of at Hanford. The total amount of waste generated and disposed of at Hanford has been, and is being, reduced through the efforts of the pollution prevention and waste minimization programs at the site. The Hanford Site Pollution Prevention Program is an ambitious program aimed at source reduction, product substitution, recycling, surplus chemical exchange, and waste treatment. The program is tailored to meet Executive Order 12780, DOE Orders, RCRA, and EPA guidelines. All wastes at Hanford, including radioactive, mixed, hazardous, and nonhazardous regulated wastes, are included in the Hanford Pollution Prevention Program. Reductions in the volumes of radioactive wastes generated have been achieved through methods such as intensive surveying, waste segregation, recycling, and the use of administration and engineering controls.

Spent Nuclear Fuel. [Text deleted.] Two spent nuclear fuel EISs were prepared that will eventually define the management of spent nuclear fuel at Hanford. The first is the *Department of Energy Programmatic Spent Nuclear Fuel Management and Idaho National Engineering Laboratory Environmental Restoration and Waste Management Program Final Environmental Impact Statement* (DOE/EIS-0203-F) referred to in Section 4.2.1, which led to a ROD published in June 1995 (60 FR 28680) and amended in March 1996 (61 FR 9441). That ROD specifies what spent nuclear fuel will be managed at Hanford, INEL, and SRS. Hanford production reactor fuel will remain at Hanford. As of 1995, Hanford has 2,133 metric tons (t) (2,351 short tons [tons]) or 81 percent of the total DOE existing spent fuel inventory. The published ROD projects 12 shipments (either truck or rail) of non-Hanford production reactor spent fuel will be sent to INEL. Each shipment, either by truck or by rail, was assumed to consist of one shipping container. Hanford would not receive any additional fuel. As a result of this action, and assuming no final disposition, by the year 2035 Hanford would have 2,132 t (2,350 tons), or 78 percent, of the total existing DOE redistributed and newly generated inventory in the form of production reactor spent nuclear fuel (61 FR 9441).

A follow-on tiered, site-specific NEPA analysis for the management of the spent nuclear fuel from the K-Basins was published in the January 1996, *Final Environmental Impact Statement on the Management of Spent Nuclear Fuel from the K Basins at the Hanford Site, Richland, Washington* (DOE/EIS-0245). Based on the analysis a ROD was published in March 1996 (61 FR 10736). The decision consists of removing the spent nuclear fuel from the basins, vacuum drying, conditioning and sealing the spent nuclear fuel in inert-gas filled canisters for dry vault storage in a new facility, to be built at Hanford, for up to 40 years pending decisions on ultimate disposition. The K-Basins will continue to be operated during the period over which the decision is implemented. If possible, the basin sludge will be transferred to the double-shell tanks for management. If not possible, the basin sludge will continue to be managed as spent nuclear fuel, or disposed of as solid TRU waste. Non-spent nuclear fuel debris will be disposed of in the low-level burial ground at Hanford. The spent nuclear fuel will be loaded in multicanister overpacks that are already in transportation casks, then the multicanister overpacks will be drained and vacuum dried.

Spent nuclear fuel is presently located in 11 facilities at Hanford: 105-KE and 105-KW basins in the 100 Area at the north end of Hanford; T-Plant, LLW burial grounds, and Plutonium Finishing Plant (PFP) in the 200 West Area; Plutonium and Uranium Recovery through Extraction (PUREX) Plant in the 200 East Area; Fast Flux Test Facility (FFTF) in the 400 Area; and Buildings 308, 324, 325, and 327 in the 300 Area at the southeast corner of the site (DOE 1995o:3-3). A summary of the inventory of spent nuclear fuel is shown in Table E.2.1–1.

As of December 1994, the following spent nuclear fuel and associated facilities are at Hanford:

- **N-Reactor Spent Nuclear Fuel.** Zirconium-alloy-clad metallic uranium fuel stored in water in the 105-KW and 105-KE basins and exposed to air in the PUREX Plant dissolver cells A, B, and C.

- **Single-Pass Reactor Spent Nuclear Fuel.** Aluminum-clad metallic uranium fuel stored in water in the 105-KE and 105-KW basins and stored in water in the PUREX Plant basin.

- **Shippingport Core II Spent Nuclear Fuel.** Zirconium-alloy-clad uranium dioxide fuel stored in water in T-Plant canyon pool cell 4.

- **Fast Flux Test Facility Spent Nuclear Fuel.** Stainless steel-clad fuel stored in liquid sodium at the FFTF, consisting mostly of Pu and uranium oxide fuel, but also uranium and Pu metals, and carbide and nitride fuel.

- **Miscellaneous Commercial and Experimental Spent Nuclear Fuel.** Consisting mainly of zirconium-alloy-clad uranium dioxide fuel stored in air in Buildings 324, 325, and 327; training, research, and isotope reactors (built by General Atomics [TRIGA]) fuel stored in water in Building 308; miscellaneous fuel stored in air-filled shielded containers at the 200 West Area burial grounds; and aluminum-clad, uranium-aluminum alloy fuel stored in air in the PFP.

Hanford has developed a *Site Integrated Stabilization Management Plan* (WHC-EP-0853, August 1995) identifying the plans for placing spent nuclear fuel and other Pu-bearing materials in safe interim storage.

High-Level Waste. HLW at Hanford was generated from the reprocessing of production reactor fuel for the recovery of Pu and uranium for defense and other national programs of spent reactor fuel and irradiated targets. HLW has been accumulating at Hanford since 1944. Most of this HLW has undergone one or more treatment steps (for example, neutralization, precipitation, decantation, or evaporation) and will eventually require incorporation into a stable, solid medium (for example, glass) for final disposal. The HLW came from many different processes and sources and has been processed and transferred among tanks so that chemical and physical characteristics of the wastes vary greatly among tanks and even within individual tanks.

Hanford HLW is stored in underground carbon-steel tanks and consists of alkaline liquid, sludge, and salt cake in single-shell tanks; slurry in double-shell tanks; and Cs and strontium (Sr) salts in double-metal alloy capsules. HLW, TRU waste, and liquid mixed LLW were stored in single-shell tanks. These tanks eventually developed leaks and double-shell tanks were built to replace them. Liquids were drawn from the single-shell tanks, concentrated, and pumped to the double-shell tanks to be held for further processing. Sludge, salt cake, and interstitial liquid remains in the single-shell tanks, as they are not readily retrievable. Plans to remove and process this waste are being made. Some of these tanks presented special hazardous conditions because of the generation of explosive gases or the generation of excessive heat that required the addition of water for active cooling, while the tank continues to leak. These "watch list tanks" are being continuously monitored, and remedies are provided until such time as the waste can be removed and processed. There is not sufficient volume in the double-shell tanks to handle the process storage requirements for cleanup of the single-shell tank waste. Additional double-shell tanks and other liquid storage facilities are being designed, and processes are being developed to treat these wastes for disposal. The management and disposition of Hanford's tank waste, and encapsulated strontium and cesium will be in accordance with decisions resulting from the *Final Environmental Impact Statement for the Tank Waste Remediation System* (DOE/EIS-0189).

Between 1956 and 1990, the PUREX Plant processed irradiated reactor fuel to extract Pu and uranium. The PUREX process was a solvent extraction process that used a tributyl phosphate in a kerosene-like solvent for recovering uranium and Pu from nitric acid solutions of irradiated uranium. The waste from the PUREX process was placed in double-shell tanks after 1970. In December 1992, DOE decided to deactivate the PUREX Plant.

All wastes contained in double-shell tanks consist of mixtures of HLW, TRU waste, and LLW, and are managed as if they contain HLW. The aging waste storage unit comprises four double-shell tanks in the 241-AY (Tanks 241-AY-101 and -102) and 241-AZ (Tanks 241-AZ-101 and -102) tank farms in the 200 East Area of Hanford.

There are currently 261,700 m^3 (342,291 yd^3) of HLW stored as alkaline liquid (24,900 m^3 [6.5 million gal]), sludge (46,000 m^3 [60,166 yd^3]), and salt cake (93,000 m^3 [121,639 yd^3]) in single-shell tanks; slurry (97,800 m^3 [127,918 yd^3]) in double-shell tanks; and as Cs and Sr salts in double-metal alloy capsules (DOE 1994c:48). The single-shell tank wastes make up 95 percent of the Hanford mixed HLW. The single-shell tanks consist of 149 tanks containing approximately 136,600 m^3 [178,666 yd^3] of waste (HF DOE 1995d:3-14). The wastes in the single-shell tanks are multi-phased: most is sludge with interstitial liquids; some is in the form of crystalline solids, along with some supernatant liquids.

Eighty-three of the single-shell tanks are located in the 200 West Area and 66 are in the 200 East Area. One hundred thirty-three of the tanks are 22.9 meters (m) (25 yards [yd]) in diameter with nominal capacities between 2,000 and 3,800 m^3 (2,616 and 4,970 yd^3). Sixteen tanks are 6.1 m (7 yd) in diameter with capacities of 210 m^3 (275 yd^3). The single-shell tanks wastes are scheduled under the Tri-Party agreement to be retrieved and vitrified in the same manner as the double-shell tanks wastes. The single-shell tanks will be closed in accordance with schedules negotiated in the Tri-Party Agreement.

Twenty-eight double-shell tanks, each with a 4,300 m^3 (5,624 yd^3) capacity, stored 78,706 m^3 (102,944 yd^3) of waste as of December 31, 1994. The double-shell tanks do not simply accumulate and store waste; the tanks are a waste-handling system. The inflows to the double-shell tank system include supernate and interstitial liquids pumped from single-shell tanks, laboratory wastes, dilute wastes from across Hanford, and waste from inactive facilities. Outflows include waste destined for evaporation and future pretreatment and vitrification processes. Evaporation decreases the double-shell tank waste volume; pretreatment and vitrification remove double-shell tank waste and prepare it for disposal. The wastes in double-shell tanks consist of solids and liquids. Typically, the solids fraction has settled out as a sludge layer. LLW, TRU waste, and HLW are further designated as ignitable, corrosive, toxic, persistent, and carcinogenic extremely hazardous waste. Many RCRA-listed waste codes are also present. Because of heavy metals contamination, double-shell tank waste also is designated as toxic by the toxicity characteristic leaching procedure. Treatment plans are to recover the contents of the tanks, separate the waste into high- and low-level fractions, and immobilize them for disposal. The TRU and high-

level fractions will be vitrified for disposal in a geologic repository; the low-level fraction would be disposed of onsite in near-surface retrievable disposal vaults covered with a thick earthen barrier following evaporation and vitrification. The 242-A evaporator is a key unit in volume minimization with this process. This unit was out of service but was restarted in April 1994 after upgrades were completed. The 242-A evaporator will be replaced by the 242-H evaporator when the new liquid effluent retention facility has been completed, replacing the practice of discharge of evaporator effluent to the soil column.

Cesium and strontium salts in double-metal alloy capsules (commonly referred to as cesium [Cs-137] and strontium [Sr-90] capsules) are part of the current HLW inventory. From 1968 to 1985, most of the high-heat-emitting nuclides (Sr-90 and Cs-137, plus their daughter products) were extracted from the old tank waste, converted to solids (strontium fluoride and cesium chloride [CsCl]), placed in double-walled metal cylinders (capsules) about 50 centimeters (cm) (20 inches [in]) in length and 5 cm (2 in) in diameter, and stored in the Waste Encapsulation and Storage Facility in water-filled pools.

The total number of Cs capsules produced is 1,577. As of August 19, 1993, the number of known dismantled Cs capsules is 249. These have been put to beneficial use and are not expected to be returned. The total number of remaining capsules requiring disposal is 1,328. Of the 1,328 remaining capsules, 959 are in storage at Hanford and 369 capsules have been leased for beneficial use. One of these capsules developed a small leak, and others have shown signs of bulging, so current plans are to bring all leased capsules back to Hanford (DOE 1995o:4-119).

The total number of Sr capsules produced is 640. As of August 19, 1993, the number of known dismantled Sr capsules was 35. These have been put to beneficial use and are not expected to be returned. The total number of remaining capsules requiring disposal is 605. Of the 605 remaining capsules, 601 are in storage at Hanford, and 4 have been leased offsite for beneficial use (DOE 1995o:4-119).

Therefore, at present 1,328 Cs capsules (2.47 m^3 [3.23 yd^3]) and 605 Sr capsules (1.08 m^3 [1.41 yd^3]) require storage. Nine hundred and fifty-nine Cs capsules and 601 Sr capsules are stored in pools of water in the Waste Encapsulation and Storage Facility. The capsules will be stored at Hanford until they can be transported to a proposed national repository (DOE 1995o:4-120). Tables E.2.1–2, E.2.1–3, and E.2.1–4 list HLW inventories and treatment and storage facilities at Hanford.

Transuranic Waste. TRU waste is primarily generated by R&D activities, Pu recovery, environmental restoration, and D&D. Most TRU waste is in solid form (for example, protective clothing, paper trash, rags, glass, miscellaneous tools, and equipment). Some TRU waste is in liquid form (sludges) resulting from chemical processing for recovery of Pu or other TRU elements.

Before 1970, all DOE-generated TRU waste was disposed of onsite in shallow, unlined trenches. From 1970 to 1986, TRU wastes were segregated from other waste types and disposed in trenches designated for retrieval. Since 1986, all TRU waste has been segregated and placed in retrievable storage pending shipment and final disposal in a permanent geologic repository.

Currently, all TRU wastes are stored in above-grade storage facilities in the Hanford Central Waste Complex and Transuranic Waste Storage and Assay Facility. The plan is to ship the stored TRU waste to WIPP near Carlsbad, New Mexico, for final disposal once WIPP can demonstrate compliance with 40 CFR 191 and 40 CFR 268. Current planning calls for all shipments to WIPP to be managed through module 1 of the Waste Receiving and Processing Facility or the proposed module 2B of the Waste Receiving and Processing Facility. If WIPP proves unsatisfactory as a TRU waste disposal facility, then another disposal facility would be selected. Should additional treatment be necessary for the disposal of TRU wastes, then Hanford would develop the appropriate treatment capability. Table E.2.1–5 lists the TRU and mixed TRU waste inventories. Tables E.2.1–6 and E.2.1–7 present the TRU and mixed TRU waste treatment and storage facilities at Hanford.

Low-Level Waste. From 1944 to 1991, approximately 558,916 m^3 (731,034 yd^3) of LLW was buried at Hanford (DOE 1995o:4-123). Between 1944 and 1986, no differentiation was made between LLW and mixed LLW.

Solid LLW is currently placed in unlined, near-surface trenches at the 200 Area LLW Burial Grounds. The site continues to receive LLW from offsite generators for disposal. Major sources of this waste are the Puget Sound Naval Shipyard in Washington, Brookhaven National Laboratory in New York, and Lawrence Berkeley Laboratory in California. Other points of origin include DOE facilities at nuclear power stations in Shippingport, Pennsylvania; Bechtel in Albany, Oregon; and Wood River in Charleston, Rhode Island. U.S. Ecology operates a licensed commercial LLW burial ground at Hanford on a site that is leased to the State of Washington. Although physically located on Hanford, it is not considered part of Hanford. The commercial LLW burial ground site area comprises 40 ha (99 acres), of which 29.5 ha (73 acres) are considered usable, with 11.9 ha (29 acres) used by the end of 1991. Through 1991, 338,500 m^3 (442,741 yd^3) of LLW had been disposed of at this site (DOE 1995o:4-123).

The LLW resulting from the tank waste remediation system waste pretreatment program will be vitrified by the end of 2035, under the tank waste remediation system LLW (vitrification) program. As a near-term contingency, the grout facility will be maintained in a standby condition. The program will utilize commercially available melters and other key processing technologies as much as possible. The program has contracts in place with several commercial melter vendors, and melter tests with Hanford waste simulants are currently being conducted. From the results of these tests, the reference melter and reference low-level glass formulation will be selected and incorporated into the design of the LLW vitrification facility. The current program baseline calls for the following: (1) initiation of hot operations of the LLW vitrification facility by June 2005 and (2) completion of vitrification of Hanford tank LLW by December 2035. The vitrified LLW will be disposed of onsite in the 200 Areas at Hanford by the tank waste remediation system program.

Mixed Low-Level Waste. Mixed LLW includes a variety of contaminated materials, including air filters, cleaning materials, engine oils and grease, paint residues, photographic materials, soils, building materials, and decommissioned plant equipment. The following special nuclear material production and site restoration activities have generated, or may generate, mixed waste:

- Fabrication of reactor fuel elements
- Operation of the production reactors
- Processing of irradiated fuel
- Separation and extraction of Pu and uranium
- Preparation of Pu metal
- Environmental restoration
- R&D support projects
- Maintenance and operations support

Between 1987 and 1991, 16,745 m^3 (21,901 yd^3) of mixed LLW were buried at Hanford (between 1944 and 1986, no differentiation was made between LLW and mixed LLW). Another 4,225 m^3 (5,526 yd^3) of mixed waste has been accumulating in storage in the Central Waste Complex, located in the 200 West Area (DOE 1995o:4-123).

Hanford also receives defueled submarine reactor compartments that are contaminated with PCBs and lead. These compartments are managed as mixed waste. In 1993, seven defueled submarine reactor compartment disposal packages were received and placed in Trench 94 of the 200-East Area LLW waste burial grounds. The Naval Nuclear Propulsion Program will prepare an EIS for its proposal to bury additional reactor compartments at Hanford. As of November 1993, there were a total of 35 submarine reactor compartments stored in Trench 94.

In 1993, 5,260 m^3 (6,880 yd^3) of mixed LLW were generated. The 78 mixed LLW streams at Hanford make up 85,000 m^3 (111,175 yd^3) of the mixed LLW. Ninety-six percent of the total is beta/gamma-emitting waste, mostly in the form of aqueous liquid in the double-shell tanks. One stream (double-shell tank miscellaneous waste) accounts for 40,000 m^3 (52,318 yd^3) of the mixed LLW, and in combination, the double-shell tank double-shell slurry feed, double-shell tank complex concentrate, and double-shell tank double-shell slurry make up another 34,500 m^3 (45,124 yd^3). Three mixed LLW streams related to the 183-H solar evaporation basin cleaning contain 2,500 m^3 (3,269 yd^3) (DOE 1995o:4-121). These inorganic sludge/particulate wastes have been neutralized and treated for packaging.

It is expected that 49 percent of all the mixed LLW at Hanford cannot be treated until the technology is modified or verified. The remaining 51 percent is to be processed through the 242-A Evaporator (a closed system in which distillates are passed through an ion-exchange system to remove Cs). Treatment for these wastes is being evaluated as part of the design of the Effluent Treatment Facility (ETF) and the Waste Receiving and Processing Facility. The Waste Receiving and Processing Facility, to be located near the Central Waste Complex, would provide size reduction, decontamination, condensation, melting, amalgamation, incineration, ash stabilization, and shipping for Hanford mixed waste. The Waste Receiving and Processing Facility will be constructed in two phases: module 1 and module 2 (2A and 2B). The separation of module 2 into the 2A and 2B components has not been formally approved through the Tri-Party Agreement change request process. Module 1 will be designed to prepare retrieved and stored TRU and would be operational in 1999. Module 2A, or the proposed commercial treatment alternative, would be designed to process LLW, TRU wastes, mixed LLW, and mixed TRU wastes, and would be operational in 1997. Module 2B, if authorized, would be designed to process LLW, TRU wastes, mixed LLW, and mixed TRU wastes with a dose rate greater than 200 millirem (mrem)/hour (hr). Module 2B has an undetermined startup date. Other technologies and plans are also being considered and will be the subject of appropriate NEPA documentation during the selection process. In a recent modification to the Tri-Party Agreement, DOE has agreed to begin design of a vitrification facility to treat liquid mixed LLW in the future.

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The RCRA components of mixed waste at Hanford are mainly the following listed wastes: D002B (alkaline liquids, 22 streams), D006B (cadmium, 29 streams), D007 (chromium, 34 streams), D008B (lead, 30 streams), and F003 (nonchlorinated solvents, 30 streams). Waste sources are primarily the separation and extraction processes that were used to produce special nuclear material. Inventory, treatment, disposal, and storage facilities for LLW and mixed LLW are listed in Tables E.2.1–8, E.2.1–9, E.2.1–10, and E.2.1–11.

Hazardous Waste. Hazardous wastes are categorized by Washington Administrative Code, *Dangerous Waste Regulations*, as dangerous waste and extremely hazardous waste. As of March 15, 1993, Hanford contained 64 interim-status treatment, storage, or disposal units. Present plans are that final RCRA permits will be sought for 24 of these 64 units, 34 units will be closed, and 6 units will be dispositioned through other regulatory options. Future circumstances may cause these numbers to change. The treatment, storage, or disposal units within the Hanford facility include, but are not limited to, tank systems, surface impoundments, container storage areas, waste piles, landfills, and miscellaneous units. Other RCRA permits, such as research, development, and demonstration permits (for example, the 200 Area Liquid ETF), are also being pursued. A summary of the hazardous waste treatment and storage facilities at Hanford is shown in Tables E.2.1–12 and E.2.1–13.

The principal present waste management practice for newly generated hazardous waste is to ship it offsite for treatment, recycling, recovery, and disposal. Table E.2.1–14 lists the hazardous waste quantities shipped offsite

in 1994. The Nonradioactive Dangerous Waste Storage Facility (Building 616) and the 305-B waste storage facility are the only active facilities storing hazardous waste (other than the less-than-90-day storage areas and two boxes (one containing mixed and one containing hazardous waste) stored in the 222-S laboratory complex).

Nonhazardous (Sanitary) Waste. Onsite treatment facilities (such as septic tanks, subsurface soil absorption systems, and a sanitary treatment plant) treat an average of 0.60 million l (0.158 million gal) of sewage per day (DOE 1995cc:4-55). The 200 Area Treated Effluent Disposal Facility industrial sewer will collect the treated wastewater streams from various plants in the 200 Areas and dispose of the clean effluent at two new 20,235-square meters (m^2) (5-acre) ponds permitted by the State of Washington. The 300 Area Treated Effluent Disposal Facility provides collection, treatment, and disposal for laboratory wastewater, boiler blowdown, steam condensate, spent softener regenerant, and heating, ventilation, and air conditioning generated in the 300 Area. The treated wastewater is discharged to the Columbia River under the conditions of a NPDES permit. Solid wastes are disposed of in the 600 Area Central Landfill. Coal waste is disposed of in landfills near the 200 East and 200 West Area powerhouses. A quantity of 246,051,000 l (64,999,793 gal) of liquid sanitary waste and 43,006 m^3 (56,249 yd^3) of solid sanitary waste are estimated to be generated each year at Hanford.

Other Nonhazardous Wastes. Solid wastes are generated in all areas of Hanford. Nonhazardous solid wastes include the following:

- Construction debris, office trash, cafeteria waste/garbage, empty containers and packaging materials, medical waste, inert materials, bulky items such as appliances and furniture, solidified filter backwash and sludge from the treatment of river water, failed and broken equipment and tools, air filters, uncontaminated used gloves and other clothing, and certain chemical precipitates such as oxalates
- Nonradioactive friable asbestos (regulated under CAA)
- Ash generated from powerhouses
- Nonradioactive demolition debris from decommissioning projects

The active Hanford Site Solid Waste Landfill, located in the 200 Area, began operation in 1973. In 1992, 22,213 m^3 (29,053 yd^3) of solid waste and 1,017 m^3 (1,330 yd^3) of asbestos were deposited in the solid waste section of the landfill (DOE 1995o:4-127). Pit 10 was opened for disposal of inert material as defined in Washington Administrative Code 173-304, and 11,389 m^3 (14,896 yd^3) of waste were disposed of there. The landfill is currently scheduled for closure in 1997.